

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently amended) A multi-layer coating applied to a substrate wherein the coating reflects colored light and comprises:

(a) an upper layer comprising a resinous binder and colorants which emit fluorescent light when exposed to visible light; and

(b) a lower layer comprising a resinous binder and light-absorbing particles, wherein said coating composition exposed to a first light level exhibits a first colored appearance that is dominated by absorbance of light by both of said colorants and said light-absorbing particles and wherein the coating composition exposed to a second light level exhibits a second colored appearance dominated by fluorescent light emitted by said colorants, wherein when the colorant comprises colorant pigments, the colorant pigments do not induce significant diffuse reflectance size of the pigment particles is selected so that the pigment particles will not scatter light effectively.

2. (Original) The coating composition of claim 1, wherein said colorants comprise dyes or pigments.

3. (Currently amended) The coating composition of claim 2, wherein said dyes are selected from the group consisting of acridines, anthraquinones, coumarins, diphenylmethanes, diphenylnaphthylmethanes, quinolones, stilbenes and triphenylmethanes.

4. (Original) The coating composition of claim 2, wherein said pigments are selected from the group consisting of azo (monoazo, disazo), naphthol, naphthol AS, salt type (lakes), benzimidazolone, condensation, metal complex, isoindolinone, isoindoline and polycyclic (phthalocyanine, quinacridone, perylene, perinone, diketopyrrolopyrrole,

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

thioindigo, anthraquinone, indanthrone, anthrapyrimidine, flavanthrone, pyranthrone, anthanthrone, dioxazine, triarylcarbonium, quinophthalone) pigments.

5. (Original) The coating composition of claim 4, wherein said pigments have a particle size of 100 nanometers or less.

6. (Original) The coating composition of claim 1, wherein said resinous binder comprises a curable polymer composition.

7. (Original) The coating composition of claim 1, wherein the concentration of said colorants in said first layer is about 0.001 wt.% - 50 wt.%.

8. (Original) The coating composition of claim 1, wherein the concentration of said light-absorbing particles in said second layer is about 0.001 wt.% - 80 wt.%.

9. (Original) The coating composition of claim 1, wherein the color value L* of the second layer is less than about 40.

10. (Original) A coated article comprising a substrate and the coating composition of claim 1, wherein said lower layer is positioned on said substrate.

11. (Original) The coated article of claim 10, further comprising a third layer overlying said upper layer, said third layer comprising an uncolored polymer composition.

12. (Original) A method of creating a color effect in a coating comprising the steps of:

providing the coating composition of claim 1;

illuminating the coating composition with light having a first intensity of light, such that the coating composition exhibits a first colored appearance dominated by absorbance of light by the colorants and the light-absorbing particles; and

illuminating the coating composition with light having a second intensity which is greater than the first light intensity, such that the coating composition exhibits a second colored appearance dominated by fluorescent light emitted by the colorants.

13. (Original) The method of claim 12, wherein the colorants comprise dyes or pigments.

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

14. (Currently amended) The method of claim 13, wherein the dyes are selected from the group consisting of acridines, anthraquinones, coumarins, diphenylmethanes, diphenylnaphthylmethanes, quinolones, stilbenes and triphenylmethanes.

15. (Original) The coating composition of claim 13, wherein the pigments are selected from the group consisting of azo (monoazo, disazo), naphthol, naphthol AS, salt type (lakes), benzimidazolone, condensation, metal complex, isoindolinone, isoindoline and polycyclic (phthalocyanine, quinacridone, perylene, perinone, diketopyrrolopyrrole, thioindigo, anthraquinone, indanthrone, anthrapyrimidine, flavanthrone, pyranthrone, anthanthrone, dioxazine, triarylcarbonium, quinophthalone) pigments.

16. (Original) The method of claim 12, wherein the color value L* of the second layer is less than about 40.

17. (Original) The method of claim 12, further comprising the step of applying the coating to a substrate.

18. (Currently amended) A multi-layer coating applied to a substrate, wherein the coating reflects colored light and comprises:

(a) an upper layer comprising a resinous binder and colorants which emit fluorescent light when exposed to visible light wherein the concentration of said colorants in said upper layer is about 0.001 wt.% - 50 wt.%; and

(b) a lower layer comprising a resinous binder and light-absorbing particles, wherein said coating composition exposed to a first light level exhibits a first colored appearance that is dominated by absorbance of light by both of said colorants and said light-absorbing particles and wherein the coating composition exposed to a second light level exhibits a second colored appearance dominated by fluorescent light emitted by said colorants, wherein when the colorant comprises colorant pigments, the

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

~~colorant pigments do not induce significant diffuse reflectance~~ size of the pigment

particles is selected so that the pigment particles will not scatter light effectively.

19. (Previously Presented) The coating composition of claim 18, wherein said colorants comprise dyes or pigments.

20. (Currently amended) The coating composition of claim 19, wherein said dyes are selected from the group consisting of acridines, anthraquinones, coumarins, diphenylmethanes, diphenylnaphthylmethanes, quinolones, stilbenes and triphenylmethanes.

21. (Previously Presented) The coating composition of claim 19, wherein said pigments are selected from the group consisting of azo (monoazo, disazo), naphthol, naphthol AS, salt type (lakes), benzimidazolone, condensation, metal complex, isoindolinone, isoindoline and polycyclic (phthalocyanine, quinacridone, perylene, perinone, diketopyrrolopyrrole, thioindigo, anthraquinone, indanthrone, anthrapyrimidine, flavanthrone, pyranthrone, anthanthrone, dioxazine, triarylcarbonium, quinophthalone) pigments.

22. (Previously Presented) The coating composition of claim 21, wherein said pigments have a particle size of 100 nanometers or less.

23. (Previously Presented) The coating composition of claim 18, wherein said resinous binder comprises a curable polymer composition.

24. (Previously Presented) The coating composition of claim 19, wherein the concentration of said light-absorbing particles in said second layer is about 0.001 wt.% - 80 wt.%.

25. (Previously Presented) The coating composition of claim 19, wherein the color value L* of the second layer is less than about 40.

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

26. (Previously Presented) A coated article comprising a substrate and the coating composition of claim 1, wherein said lower layer is positioned on said substrate.

27. (Previously Presented) The coated article of claim 26, further comprising a third layer overlying said upper layer, said third layer comprising an uncolored polymer composition.

28. (Previously Presented) A method of creating a color effect in a coating comprising the steps of:

providing the coating composition of claim 18;

illuminating the coating composition with light having a first intensity of light, such that the coating composition exhibits a first colored appearance dominated by absorbance of light by the colorants and the light-absorbing particles; and

illuminating the coating composition with light having a second intensity which is greater than the first light intensity, such that the coating composition exhibits a second colored appearance dominated by fluorescent light emitted by the colorants.

29. (Previously Presented) The method of claim 28, wherein the colorants comprise dyes or pigments.

30. (Currently amended) The method of claim 29, wherein the dyes are selected from the group consisting of acridines, anthraquinones, coumarins, diphenylmethanes, diphenylnaphthylmethanes, quinolones, stilbenes and triphenylmethanes.

31. (Previously Presented) The coating composition of claim 29, wherein the pigments are selected from the group consisting of azo (monoazo, disazo), naphthol, naphthol AS, salt type (lakes), benzimidazolone, condensation, metal complex, isoindolinone, isoindoline and polycyclic (phthalocyanine, quinacridone, perylene, perinone, diketopyrrolopyrrole, thioindigo, anthraquinone, indanthrone, anthrapyrimidine, flavanthrone, pyranthrone, anthanthrone, dioxazine, triarylcarbonium, quinophthalone) pigments.

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

32. (Previously Presented) The method of claim 28, wherein the color value L* of the second layer is less than about 40.

33. (Previously Presented) The method of claim 28, further comprising the step of applying the coating to a substrate.

34. (Currently Amended) A multi-layer coating applied -to a substrate, wherein the coating reflects colored light and comprises:

(a) an upper layer comprising a resinous binder and colorants which emit fluorescent light when exposed to visible light; and

(c) a lower layer comprising a resinous binder and light-absorbing particles, wherein the concentration of said light-absorbing particles in said lower layer is about 0.001 wt.% - 80 wt.%,

wherein said coating composition exposed to a first light level exhibits a first colored appearance that is dominated by absorbance of light by both of said colorants and said light-absorbing particles and wherein the coating composition exposed to a second light level exhibits a second colored appearance dominated by fluorescent light emitted by said colorants, wherein when the colorant comprises colorant pigments, the ~~colorant pigments do not induce significant diffuse reflectance~~ size of the pigment particles is selected so that the pigment particles will not scatter light effectively.

35. (Previously Presented) The coating composition of claim 34, wherein the concentration of said colorants in said first layer is about 0.001 wt.% - 50 wt.%.

36. (Previously Presented) The coating composition of claim 34, wherein said colorants comprise dyes or pigments.

37. (Previously Presented) The coating composition of claim 34, wherein said colorants comprise dyes or pigments.

Response Under 37 CFR 1.116

Expedited Procedure

Examining Group 1700

Application No. 10/662,077

Paper Dated August 17, 2006

In Reply to USPTO Office Action dated May 18, 2006

Attorney Docket No. 1887A1/RC

38. (Currently amended) The coating composition of claim 37, wherein said dyes are selected from the group consisting of acridines, anthraquinones, coumarins, diphenylmethanes, diphenylnaphthylmethanes, quinolones, stilbenes and triphenylmethanes.

39. (Previously Presented) The coating composition of claim 37, wherein said pigments are selected from the group consisting of azo (monoazo, disazo), naphthol, naphthol AS, salt type (lakes), benzimidazolone, condensation, metal complex, isoindolinone, isoindoline and polycyclic (phthalocyanine, quinacridone, perylene, perinone, diketopyrrolopyrrole, thioindigo, anthraquinone, indanthrone, anthrapyrimidine, flavanthrone, pyranthrone, anthanthrone, dioxazine, triarylcyanium, quinophthalone) pigments.

40. (Previously Presented) The coating composition of claim 39, wherein said pigments have a particle size of 100 nanometers or less.

41. (Previously Presented) The coating composition of claim 34, wherein said resinous binder comprises a curable polymer composition.

42. (Previously Presented) The coating composition of claim 34, wherein the color value L* of the second layer is less than about 40.

43. (Previously Presented) A coated article comprising a substrate and the coating composition of claim 34, wherein said lower layer is positioned on said substrate.

44. (Previously Presented) The coated article of claim 43, further comprising a third layer overlying said upper layer, said third layer comprising an uncolored polymer composition.

REMARKS

Claims 1-44 are currently pending. Claims 1, 3, 14, 18, 20, 30, 34 and 38 are amended. Claims 1, 18 and 34 are amended to clarify the particle size of the colorant